

StorCase® Technology
Rhino® JR
FJR110

1-Bay External
FireWire 800/USB 2.0-to-IDE
Expansion Chassis
User's Guide

Part No. D89-0000-0249 A04 July 2005

Kingston Technology Affiliate



StorCase Technology, Inc.
17600 Newhope Street
Fountain Valley, CA 92708-9885
Phone (714) 438-1850
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LIMITED WARRANTY

STORCASE TECHNOLOGY, Incorporated ("StorCase") warrants that its products will be free from defects in material and workmanship, subject to the conditions and limitations set forth below. StorCase will, at its option, either repair or replace any part of its product that proves defective by reason of improper workmanship or materials. Repair parts or replacement products will be provided by StorCase on an exchange basis, and will be either new or reconditioned to be functionally equivalent to new.

This warranty does not cover any product damage that results from accident, abuse, misuse, natural or personal disaster, external power surge or failure, or any unauthorized disassembly, repair or modification. StorCase will not be responsible for any software, firmware or other customer data stored within, or interfacing with a StorCase product.

Duration of Warranty

Seven-Year Warranty: The following StorCase products are covered by this warranty for a period of seven (7) years from the original date of purchase from StorCase or its authorized resellers: all Data Express® removable device enclosures and all Data Silo®, Data Stacker® and InfoStation® external expansion chassis, except for those components integrated into or purchased separately for use with these products which are identified and covered by the three-year or hard drive warranties described below. All StorCase interface cables and other accessories specifically intended for use with the StorCase products identified above are also covered by this (7) year warranty.

Three-Year Warranty: The following components integrated into or purchased separately for use with StorCase Data Express, Data Silo, Data Stacker and/or InfoStation products are subject to warranty for a period of three (3) years from the original date of purchase from StorCase or its authorized resellers: all RAID controllers, power supplies, fans and blowers.

Two-Year Warranty: The following StorCase products are covered by this warranty for a period of two (2) years from the original date of purchase from StorCase or its authorized resellers: all Rhino®JR fixed external expansion chassis (model types "FJR") and all RhinoJR removable device enclosures (model types "RJR").

One-Year Warranty: All StorCase products identified as Reconditioned or "Special Inventory" are covered by this warranty for a period of one (1) year from the original date of purchase from StorCase or its authorized resellers. Reconditioned products may only be exchanged for reconditioned products.

Hard Disk Drive Warranty: All hard disk drives purchased from StorCase or through its authorized resellers, whether purchased separately or integrated into StorCase products, are subject to the warranty terms and conditions provided by the drive manufacturer.

Third Party Software Warranty: All third party software purchased from StorCase for use with and/or as part of StorCase products is subject to the warranty terms and conditions provided by the software manufacturer.

Warranty Claim Requirements

To obtain warranty service, the defective product must be returned to your local authorized StorCase dealer or distributor, or, with prior StorCase approval, to the StorCase factory service center.

For defective products returned directly to StorCase, a Return Material Authorization ("RMA") number must be obtained by calling StorCase Customer Service at (714) 445-3455. The RMA number must be prominently displayed on the outside of the return package. Shipments must be freight-prepaid and insured, and must include the product serial number, a detailed description of the problem experienced, and proof of the original retail purchase date. Products must be properly packaged to prevent damage in transit. Damage resulting from improper packaging will not be covered by this warranty. The StorCase factory service center is located at 17650 Newhope Street, Receiving Dock, Gate #4, Fountain Valley, CA 92780, U.S.A.

Free Technical Support

StorCase provides free technical support. If you experience any difficulty during the installation or subsequent use of a StorCase product, please contact StorCase's Technical Support Department prior to servicing your system. This warranty covers only repair or replacement of defective StorCase products, as described above. StorCase is not liable for, and does not cover under warranty, any costs associated with servicing and/or installation of StorCase products.

StorCase Technical Support can be reached in the U.S. at (714) 438-1858 or toll-free at (888) 435-5460 (U.S. and Canada only). StorCase European Technical Support can be reached in the U.K. at +44 (0) 1932 738900.

Disclaimers

The foregoing is the complete warranty for the products identified above and supersedes all other warranties and representations, whether oral or written. StorCase expressly disclaims all warranties for the identified products, which are not stated herein, including, to the extent permitted by applicable law, any implied warranty of merchantability or fitness for a particular purpose. In no event will StorCase be liable to the purchaser, or to any user of a StorCase product, for any damages, expenses, lost revenues, lost savings, lost profits, or any other incidental or consequential damages arising from the purchase, use or inability to use a StorCase product, even if StorCase has been advised of the possibility of such damages.



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Declaration of Conformity

Company Name: StorCase Technology, Inc.

Corporate Office Address: 17600 Newhope Street
Fountain Valley, CA 92708

Product Name: RhinoJr. 1-Bay Expansion Chassis

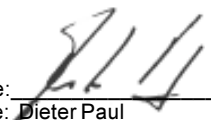
Model Number: S35F100, S35F101, S35F102

Conforms to the following standards:

EMC Directives: EN 55022: 1998
(89/336/EEC) - EN 61000-3-2 Harmonic Current
- EN 61000-3-3 Voltage Fluctuations and Flicker
EN 55024: 1998 ITE Immunity
- IEC 61000-4-2 - IEC 61000-4-5
- IEC 61000-4-3 - IEC 61000-4-6
- IEC 1000-4-4 - IEC 61000-4-8
- IEC 61000-4-11

EMI Standards: FCC Part 15, Class A

Year of Manufacture: 2004

Signature: 
Full name: Dieter Paul
Position: President

INTRODUCTION

WARNING: The RhinoJR contains NO USER SERVICEABLE PARTS inside the unit. Refer ALL servicing to qualified service personnel!

NOTE: For Windows® 98 applications, you will need to download the FJR110 USB driver from the StorCase web site (<http://www.storcase.com/support/firmware.asp>).

The StorCase® Technology RhinoJR FJR110 1-bay FireWire 800/USB 2.0-to-IDE external expansion chassis provides low cost, rugged and reliable housing for 3.5" half-height storage devices. The RhinoJR is constructed of rugged steel and polycarbonate. Each chassis is equipped with an auto-ranging power supply, power-on and device activity LEDs, highly-rated cooling fan, and all necessary hardware to mount one (1) fixed 3.5" half-height device.



Figure 2: RhinoJR FJR110 External Chassis

Features:

- Stackable desktop enclosure
- Supports Ultra ATA133 drives (downward compatible with earlier-technology AT/IDE drives)
- Two (2) FireWire 800 (IEEE-1394b) ports and one (1) USB 2.0 port
- Universal Plug and Play
- Supports FireWire 800 high-speed transfer rates (up to 800Mbps) or USB 2.0 transfer rates (up to 480Mbps)
- Compliant with ATA-6, IEEE-1394b, and USB 2.0 Standards
- Corrosion-resistant steel and polycarbonate construction
- One (1) fan (5.0 CFM)
- One (1) 34W auto-ranging power supply
- Includes external 6' Beta-to-Beta (FW 800-to-FW 800) cable and external 6' USB 2.0 cable
- 2-year warranty and free 24/7 technical support

Front Panel

(Figure 2)

- **Power Switch:** Controls power to the chassis.

NOTES: Disable FireWire or USB device on host computer desktop *before* turning OFF power (simply right-click on the "Unplug/Eject Hardware" Icon located in the System Tray and "disconnect").

For Microsoft® Windows® 2000 and FireWire applications, DO NOT turn on immediately after turning off power. Wait at least 15 seconds before turning power back on.

- **LEDs:**

Power - Steady glow indicates power ON.
(Green)

Drive Activity - Flashing indicates drive is being accessed.
(Amber)

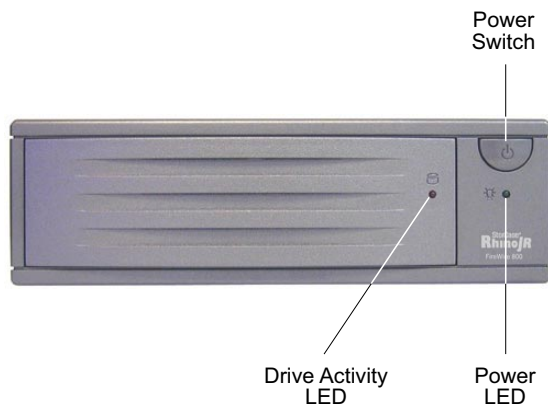


Figure 2: Front Panel

Rear Panel

(Figure 3)

- **A/C Power In:** Accepts U.S. and other available international standard power cables. Contact StorCase for further ordering information.
- **FW 800 Ports:** These two (2) I/O connectors provide a standard interface for FireWire 800 (IEEE-1394b) signals.
- **USB 2.0 Port:** This I/O connector provides a standard interface for USB 2.0 signals.
- **Cooling Fan:** Fan provides ample chassis ventilation (5.0 CFM).

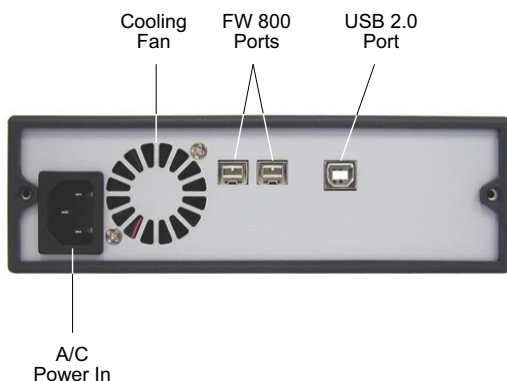


Figure 3: Rear Panel

INSTALLATION

CAUTION: Remove ALL power from the RhinoJR before removing the cover.

The RhinoJR chassis contains NO USER SERVICEABLE parts inside the unit. Refer ALL servicing to qualified personnel!

NOTES: A #2 Phillips screwdriver will be required for this procedure.

For Windows® 98 applications, you will need to download the FJR110 USB driver from the StorCase web site (<http://www.storcase.com/support/firmware.asp>).

Refer to the disk manufacturer's documentation for specific information regarding the disks.

Removing the RhinoJR Cover and Access Panel

1. Unplug chassis and verify that ALL cables have been disconnected.
2. Carefully slide the chassis cover rearward off chassis (Figure 4).



Figure 4: Removing the Cover

3. Carefully lift up the rear end of the access panel and slide off chassis (Figure 5).

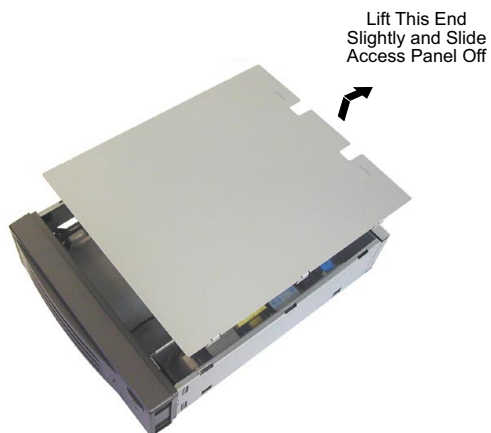


Figure 5: Removing the Access Panel

Installing the Drive into the Chassis

NOTES: Removal of chassis cover and access panel are required to install the drive.
Refer to your drive manufacturer's documentation for further information.

1. Carefully insert drive (not included) into the chassis.
2. Connect the I/O cable to the drive (Figure 6).
3. Connect the DC power cable to the drive (Figure 6).

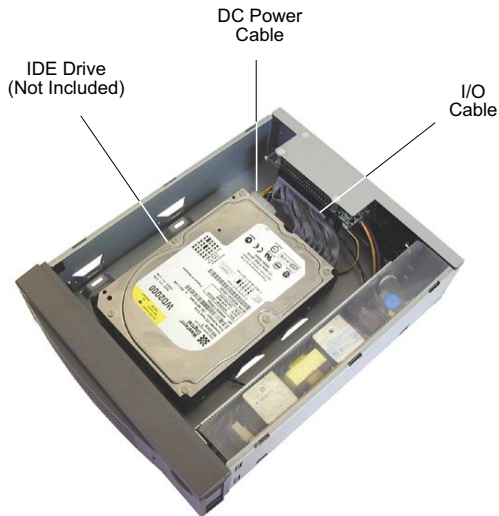


Figure 6: Installing the Drive

4. Carefully turn the chassis over and bottom-mount the drive with four (4) #6-32 Phillips or M3 screws (both provided) as shown in Figure 7.
5. Reinstall access panel and cover onto the chassis. Cover may be secured to the chassis using two (2) Phillips M3 Flat Hd. screws (provided).



Figure 7: Bottom-Mounting the Drive

SPECIFICATIONS

The following RhinoJR specifications are for reference only.

Environmental Specifications		
	Operating	Storage
Ambient Temperature	0° C to 40° C	-40° C to 70° C
Relative Humidity ⁽¹⁾	10% to 80%	10% to 90%
Altitude	-1000 to 10,000 ft	-1000 to 40,000 ft
	-305m to 3048m	-305m to 12195m

⁽¹⁾Non-condensing with maximum gradient of 10% per hour

Physical Specifications	
Height	2.36" (60.0mm)
Width	7.56" (192.0mm)
Depth	9.76" (248.0mm)
Weight	3.2 lbs (1.45kg) ⁽¹⁾

⁽¹⁾Weight empty (without drive installed)

Fan Air Flow	
Total (For 1 Fan)	5.0 CFM

Electrical Specifications	
(1) Auto-ranging 34W (40W Peak) Power Supply	
AC Input	100 to 240 VAC, 47-63Hz at 1.0A Max
DC Output Continuous	5V at 2.0A, 12V at 2.0A

Chassis Reliability/Maintainability	
MTBF ⁽¹⁾	220,000 Hours
MTTR ⁽²⁾	5 Minutes
Preventive Maintenance	None

⁽¹⁾MTBF = Mean Time Between Failure

⁽²⁾MTTR = Mean Time To Repair

Compliance	IEEE-1394b & ATA-6	USB 2.0 & ATA-6
Max. Transfer Rate	up to 800Mbps	up to 480Mbps
Max. Cable Length	4.5m (14.75 ft)	5m (16.5 ft)

NOTICE:

This User's Guide is subject to periodic updates without notice. While reasonable efforts have been made to ensure accuracy of this document, StorCase Technology, Inc. assumes no liability resulting from errors or omissions in this publication, or from the use of the information contained herein.

Please check the StorCase website at <http://www.storcase.com> or contact your StorCase representative for the latest revision of this document.